At the outset, Applicants respectfully submit that the Office Action is internally inconsistent in that, in paragraph 1.1 under the Response to Remarks, the Office Action states "[s]ince the Applicant has not disputed this interpretation, therefore, the interpretation stands." Based on this statement, with which Applicants do not agree, and for which no basis in law or the rules is provided, Applicants are unclear as to whether the Examiner considers the claims definite and unambiguous based on the Examiner's interpretation of the claim language, or whether the rejections under 35 U.S.C. §112, second paragraph, are maintained. In either case, Applicants previously argued, and maintain that those of ordinary skill in the art would recognize the meaning of each of these terms that the Examiner asserts are indefinite and/or ambiguous. For at least this reason, maintaining the rejections of any of the pending claims under 35 U.S.C. §112, second paragraph, is unreasonable.

The test for compliance with the second paragraph of 35 U.S.C. §112, as stated in *Miles Lab., Inc. v. Shandon Inc.*, 997 F.2d 870, 875, 27 USPQ2d 1123, 1126 (Fed. Cir. 1993), *cert. denied*, 510 U.S. 1100 (1994) is whether one skilled in the art would understand the bounds of the claims when read in light of the specification. If the claims, read in light of the specification, reasonably apprise those skilled in the art of the scope of the invention, Section 112 demands no more. *See also, In re Merat*, 519 F.2d 1390, 1396, 186 USPQ 471, 476 (CCPA 1975). Only when the claims are indefinite to the point that there must be considerable speculation as to the meaning of the terms in the claims, and assumptions as to their scope, should these claims be rejected under 35 U.S.C. §112, second paragraph. *In re Steele*, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962).

Applicants previously argued that the terms asserted in the Office Action as being indefinite would be understood given their plain meaning as understood by those of ordinary skill in the art. It is improper for the Office Action to assert that Applicants' arguments in this regard lack merit.

While not conceding the propriety of any of the rejections of any claim under 35 U.S.C. §112, second paragraph, for the reasons discussed below, Applicants respectfully submit the following.

Claim 2 refers to "unspecified" and "specified" users. The term "specified users" is interpreted by the Office Action as lacking antecedent basis. With reference to at least the paragraph beginning on page 12, line 7, Applicants' disclosure states that "the in-house CA authenticates a public key of only particular users belonging to the company or the division (here, 'user' includes not only an individual, but also a group of people or a device), whereas the public CA authenticates public keys of many unspecified users." With reference to at least this disclosure, one of ordinary skill in the art would clearly recognize that the use of the term "specified users" in claim 2 is neither ambiguous or indefinite.

With respect to claim 4, the Office Action asserts that the term "predetermined" lacks antecedent basis with respect to a network. Applicants' disclosure is replete with references to devices and/or communications being within, internal to, or inside a network, and other devices and/or communications being external to or outside a network. As such, predetermined networks are specified throughout Applicants' disclosure, and in exemplary embodiments such as, for example, in discussion of the embodiment in the paragraph beginning on page 19, line 28 in which Applicants' disclosure states "the job flow controller 25 is connected to an internal network within the same company as the instruction input device 10." This is but one of many references throughout Applicants' disclosure to a network, which, when the term predetermined is given its plain meaning, simply indicates that it is determined and/or specified in advance.

With respect to claims 7 and 10, the term "positional" is asserted to lack antecedent basis. Again here, Applicants' disclosure is replete with references to devices being located within a network or otherwise. One of ordinary skill in the art would recognize that an

automated determination may be made regarding the location of a specific device with respect to a network based on positional information regarding that device.

With respect to claims 12-16, the Office Action asserts that the term "document" lacks antecedent basis. The Office Action states that no precise definition of what is contained within a document is given by the specification. Such definition is not required. Further, it is not within the Examiner's purview to limit the plain meaning of any term recited in Applicants' disclosure, and specifically in Applicants' claim. Therefore, any attempt to limit the broadest reasonable construction of the term document to include any specific definition that precludes any manner by which that term may be interpreted by those of ordinary skill in the art is improper. Those of ordinary skill in the art recognize documents to include at least all manner of hard copy media and/or digital media that may be defined under a broadest reasonable construction of the term document, which the Patent Office is required to give the term. Simply because a term is broad in definition does not make that term, on its face indefinite or ambiguous.

Applicants' representative indicated Applicants' ongoing concern regarding the 35 U.S.C. §112, second paragraph, rejections of the claims to Examiners Johnson and Moazzami during the March 22 personal interview. Examiner Moazzami indicated that Applicants need not be further concerned regarding the rejections of any of the pending claims under 35 U.S.C. §112, second paragraph.

With Applicants' specific discussion above regarding why Applicants' disclosure adequately meets the standards for presenting each of the enumerated terms in a manner that is neither ambiguous or indefinite, reconsideration and withdrawal of the rejections of the pending claims under 35 U.S.C. §112, second paragraph, are respectfully requested.

II. Claims 1, 2 and 5 are Not Anticipated by Shear

The Office Action, in paragraph 5, rejects claims 1, 2, and 5 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,157,721 to Shear et al. (hereinafter "Shear"). This rejection is respectfully traversed.

The Office Action reasserts that Shear can reasonably be interpreted as teaching the features positively recited in independent claims 1 and 5. The analysis of the Office Action fails for at least the following reasons.

Shear does not teach a selection unit for selecting one of a first signature key certified by a first certificate authority and a second signature key certified by a second certificate authority for signing instruction data having a process description for instructing a job process or data to be processed in a job process; and a signing unit for signing the instruction data or the data to be processed using the key selected by the selection unit. The portions upon which the Office Action relies in the current rejection of these claims over Shear are the same portions upon which the previous Office Action relied. Applicants previously argued that Shear cannot reasonably be considered to teach, or to have suggested, a selection unit with all of the features positively recited in the pending claims. In response, in paragraph 1.2 of the Response to Remarks, the Office Action asserts that Shear can reasonably be considered to teach multiple certificate authorities based on Shear's disclosure of multiple verifying authorities.

While not conceding the propriety of the above argument, Applicants are unable to discern how the asserted software implementation discussed separately in the Office Action can reasonably be considered to teach any sort of a <u>selection unit</u>. Certainly such a selection unit is not explicitly disclosed. Therefore, the Office Action must be relying on some inherent disclosure generally regarding software implementations. It is unreasonable to conclude that simply by discussing a software implementation of some capability that such a

disclosure <u>necessarily</u> may be considered to include a selection unit with all of the features positively recited in independent claims 1 and 5. For at least this reason, the Office Action fails to support a *prima facie* case for anticipation of the subject matter of the pending claims.

Further, the reference at col. 3, lines 19-21, of Shear refers to some prior art implementation, shortfalls in which the invention disclosed in Shear is intended to overcome. The combination of a limitedly related prior art disclosure with any embodiment disclosed in Shear is improper in view of the standards for anticipation. In reviewing the standard, the Federal Circuit has stated "[t]o anticipate, every element and limitation of the claimed invention must be found in a single prior art reference, arranged as in the claim." Brown v. 3M, 265 F.3d 1349, 1351, 60 USPQ2d 1375 (Fed. Cir. 2001), cert. denied, 122 S. Ct. 1436 (2002) (emphasis added). Additionally, other court precedent clarifies the requirements for anticipation, stating that "the reference ... must clearly and unequivocally disclose the claimed compound or direct those skilled in the art to the compound without any need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference." In re Arkley, 455 F.2d 586, 587, 172 USPQ 524 (CCPA 1972) (emphasis added); see also Sandisk Corp. v. Lexar Media, Inc., 91 F. Supp. 2d 1327, 1336 (N.D. Calif. 2000) (stating that "[u]nless all the elements are found in a single piece of prior art in exactly the same situation and united the same way to perform the identical function, there is no anticipation."), and Aero Industries Inc. v. John Donovan Enterprises-Florida Inc., 53 USPQ2d 1547, 1555 (S.D. Ind. 1999) (stating that "[n]ot only must a prior patent or publication contain all the claimed elements of the patent claim being challenged, but they 'must be arranged as in the patented device.' "). The standard for anticipation is also met in MPEP §2131, which states that "the identical invention must be shown in as much detail as is contained in the ... claim." Further, although the same terminology need not be used, "the elements must be arranged as required by the claim."

The Office Action improperly ignores these requirements for anticipation by modifying any embodiment positively disclosed in the detailed description of the invention in Shear with an embodiment of an invention in the background of the prior art disclosed which shortfalls of the prior art device the invention in Shear is intended to overcome.

Claim 1 recites, among other features, a selection unit for selecting one of a first signature key certified by a first certificate authority and a second signature key certified by a second certificate authority for signing instruction data having a process description for instructing a process or data to be processed in a process; and a signing unit for signing the instruction data or the data to be processed using the signature key selected by the selection unit. Independent claim 5 recites, among other features, selecting one of a first signature key certified by a first certificate authority and a second signature key certified by a second certificate authority for signing instruction data having a process description for instructing a job process or data to be processed in a job process; and electrically signing the instruction data or the data to be processed using the signature key selected in the selection step. For at least its failure to disclose any selection unit (or selecting step), and/or any signing unit (or electronically signing step) using the signature key selected by the selection unit (or selecting step), Shear cannot reasonably be considered to teach, or even to have suggested, the combinations of all of the features positively recited in independent claims 1 and 5. Further, claim 2 is also neither taught, nor would it have been suggested, by Shear for at least the dependence of this claim directly on an allowable independent claim 1, as well as for the separately patentable subject matter that this claim recites.

Applicants' representative presented the above arguments in support of the allowability of at least independent claim 1 to Examiners Johnson and Moazzami during the March 22 personal interview. Applicants understand, based on the personal interview, that

further consideration of Applicants' arguments will be undertaken upon submission of this formal response.

Accordingly, reconsideration and withdrawal of the rejection of claims 1, 2 and 5 under 35 U.S.C. §102(b) as being anticipated by Shear are respectfully requested.

III. Claims 3, 4 and 6-11 are Not Obvious Over Shear and Teng

The Office Action, in paragraph 7, rejects claims 3, 4 and 6-11 under 35 U.S.C. §103(a) as being unpatentable over Shear in view of U.S. Patent Application Publication No. 2002/0138577 to Teng et al. (hereinafter "Teng"). This rejection is respectfully traversed.

With respect to the rejections of dependent claims 3 and 4, to the extent that Teng may even be combinable with Shear in the manner suggested by the Office Action, a conclusion which Applicants dispute for at least the reasons indicated below, Teng is not applied in a manner that would overcome the above-identified shortfall in the application of Shear to the combination of features positively recited in at least independent claim 1. As such, the combinations of all of the features positively recited in claims 3 and 4 cannot reasonably be considered to have been suggested by any permissible combination of Shear and Teng for at least the respective of these claims directly or indirectly on an allowable base claim as well as for the separately patentable subject matter that each of these claims recites.

Claim 6 recites, among other features, a key storage unit having separate signature keys, one for use inside of a network to which the job processor belongs and the other for use outside of the network; and a judging unit for judging whether or not the next job processor is a device within the network; and a signature processor unit for electronically signing the output job flow instruction data using the signature key for the inside when the job processor is a device within the network and using the signature key for the outside otherwise.

Independent claim 8 recites, among other features, "judging whether or not the next processor is a device within the network; and electronically signing the output job flow instruction data

using a signature key for the inside of the network to which the job processor belongs when the next job processor is a device within the network and a signature key for outside the network otherwise." Independent claims 9 and 11 respectively recite similar features.

The Office Action relies on the disclosure of Teng, in a combination of paragraphs [0192] and [0403], to assert that Teng can reasonably be considered to have suggested the key storage unit, with all of the features as positively recited in, for example, independent claim 6. The analysis of the Office Action fails for at least the following reasons. Simply because Teng at paragraph [0192] may be relied upon as suggesting different nodes which can be specified; and Teng at paragraph [0403] may be considered as having suggested some matter by which to obtain a certificate status, Teng cannot reasonably be considered to have suggested the combination of all of the features positively recited in, for example, independent claims 6, 8, 9 and 11. The overly strained approach that the Office Action takes in attempting to find in limitedly related disclosures in Teng all of the features positively recited in independent claims 6, 8, 9 and 11 as arguably having been suggested is improper and unsupportable on the written record.

In other words, there is nothing in any permissible combination of Shear and Teng that can reasonably be considered to have suggested the combinations of features positively recited above in the enumerated independent claims for at least the reason that Teng does not suggest separate keys for processors located inside or outside a network, as is positively recited in the claims. Applicants' representative presented the above arguments to Examiners Johnson and Moazzami during the March 22 personal interview. Applicants understand, based on the personal interview, that further consideration will be given to Applicants' arguments upon submission of this formal response.

Further, the asserted motivation for combining these references falls short of meeting the required standard for showing why one of ordinary skill in the art when confronted with

Applicants' objectives would have been motivated to combine these references in the manner suggested. Shear is directed to securing and/or protecting computer execution environments against potentially harmful computer executables, programs and/or data, and to techniques for certifying load modules such as executable computer programs or fragments thereof as being authorized for use by a protected or secure processing environment (col. 1, lines 19-28).

Teng is directed toward the use of work flows based on domains in that when work flow is created, it is associated with a domain. The domain is defined by a selected node and all nodes below the selected node. The system will perform a requested task by using a work flow that is associated with a domain that includes the target of the request (paragraph [0014]). As such, Teng, for example, can reasonably be considered to specify a network domain in which the specific processor (node) for carrying out a work flow is located.

In Teng's Description of Related Art, Teng discusses a network environment at paragraph [0010]. The Office Action cites this paragraph describing the growth of the Internet as allegedly standing for the proposition that Teng can reasonably be considered to disclose any user identity based security within a network environment. Unfortunately, Applicants do not read this paragraph of Teng as discussing any such conclusion. It is upon this basis which the Office Action relies for the assertion, stated in a conclusory manner, that one of ordinary skill in the art would have been motivated to employ Teng in order to enable identity based security for a job processing work load that prevents unauthorized access, and reduces congestion by removal of excess traffic within a network environment. For at least Teng's failure to disclose any such conclusion, and the total inability of the Office Action to state, other than in some conclusory manner, why one of ordinary skill in the art would have been motivated to combine these references in the manner suggested, this rejection of the pending claims necessarily fails.

Any such conclusory statement that an Office Action uses to support that there is some teaching, suggestion or motivation in the prior art to combine the references in the manner suggested, without more, is not enough to meet the articulated standard for such a showing either under Federal Circuit precedent, or the Rules, as interpreted by the MPEP. The Federal Circuit has held, on numerous occasions, that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977 (Fed. Cir. 2006) (quoting *In re Lee*, 277 F.3d 1338, 1343 46 (Fed. Cir. 2002), and *In re Rouffet*, 149 F.3d 1350, 1355-59 (Fed. Cir. 1998)). This standard is not met here in any of the statements regarding combining Shear with Teng as no articulated reasoning with some rational underpinning is provided to support a conclusion why one of ordinary skill in the art, with the teachings of these references in front of him or her, may have been, in any way, motivated to combine these references in the manner suggested by the Office Action to render obvious the subject matter of the pending claims.

Further, MPEP §2143.01 instructs that "[t]he mere fact that references can be combined or modified does not render the resulting combination obvious unless the prior art also suggests the desirability of the combination." This MPEP section further instructs that "[a]lthough a prior art device 'may be capable of being modified to run the way the apparatuses claim, there must be a suggestion or motivation in the reference to do so.' " *See also In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Applicants respectfully submit that the rejection of at least independent claims 6, 8, 9 and 11 is improper in view of at least MPEP 2143.01 and the above-quoted Federal Circuit precedent because the Office Action lacks the required specific objective evidence of record of a teaching, suggestion or motivation in the prior art for one of ordinary skill in the art to have combined these

references in the manner suggested to render obvious the subject matter of the pending claims.

For at least the above reasons, the combinations of all of the features positively recited in independent claims 6, 8, 9 and 11 would not have been suggested by any permissible combination of the applied prior art references, to the extent that they are even combinable in the manner suggested by the Office Action. Further, claims 7 and 10 also would not have been suggested by this combination of applied prior art references for at least the respective dependence of these claims directly on allowable base claims 6 and 9, as well as for the separately patentable subject matter that each of these claims recites.

Accordingly, reconsideration and withdrawal of the rejection of claims 3, 4, and 6-11 under 35 U.S.C. §103(a) as being unpatentable over Shear in view of Teng are respectfully requested.

IV. Claims 12-16 are Not Obvious in View of Shear, Teng and Shrader

The Office Action, in paragraph 8, rejects claims 12-16 under 35 U.S.C. §103(a) as being unpatentable over Shear in view of Teng and further in view of U.S. Patent No. 6,772,341 to Shrader et al. (hereinafter "Shrader"). This rejection is respectfully traversed.

For at least the reasons indicated above (1) Shear cannot be relied upon as teaching the specific features upon which the Office Action relies; and (2) Shear and Teng are not combinable in the manner suggested by the Office Action in an attempt to render obvious the subject matter of any of the pending claims.

In addition to the above, the rejections of claims 12-16 necessarily fail because to the extent that Shrader teaches deleting an attached digital signal from a document, apparently the only subject matter for which Shrader is relied upon, no proper showing for making such a combination has been set forth other than to state, again in a conclusory manner, that such motivation may be found because Shrader is alleged to disclose utilized standards based

processing techniques to improve data processing. This conclusory statement fails for the reasons indicated above. Further, simply because Shrader may arguably be relied upon as teaching removing a digital signature from a document, it is not reasonable for the Office Action to conclude that one of ordinary skill in the art, given the teachings of these three references, would have cut and pasted together the unrelated features allegedly separately disclosed in each of these references in the manner suggested, and to which none of the references speaks in any manner as involving any shortfall in the invention disclosed therein, to render obvious the subject matter of the pending claims.

Accordingly, reconsideration and withdrawal of the rejection of claims 12-16 under 35 U.S.C. §103(a) as being unpatentable over any permissible combination of Shear, Teng and Shrader are respectfully requested.

V. Conclusion

In view of the foregoing, Applicants respectfully submit that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-16 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number set forth below.

Respectfully submitted

James A. Oliff

Registration No. 27,075

Daniel A. Tanner, III Registration No. 54,734

JAO:DAT/cfr

Date: March 23, 2007

OLIFF & BERRIDGE, PLC P.O. Box 19928 Alexandria, Virginia 22320 Telephone: (703) 836-6400 DEPOSIT ACCOUNT USE
AUTHORIZATION
Please grant any extension
necessary for entry;
Charge any fee due to our
Deposit Account No. 15-0461